Service Information

Dishwasher

This documentation is only intended for qualified technicians who are aware of the respective safety regulations.

Subject to modifications

This document is applied to model **ADP9000**

Date: 14 Dec. 2010

Version: 02

Spare part list

No.	Material code	PART NAME	Quantity per appliance
1	673000900188	External pipe	1
2	673001500005	O Ring I	1
3	673001800364	Guide casing	1
4	673001600021	External pipe nut	1
5	673001900016	Water dispenser	1
6	673000900195	Upper sprayer pipe	1
8	672000900017	Cross recessed tapping screw ST3.5×9	20
9	673002300002	Float holder	1
10	673002300003	Float	1
11	674000300060	Micro switch	2
12	672010200014	Cross recessed tapping screw ST2.9×22	1
13	673001300099	Coarse filter	1
14	673002500056	Fine filter	1
15	673002500057	main filter orientation ring	1
16	673002500055	Main filter	1
17	673000300067	Upper sprayer	1
18	672000600013	Lower sprayer	1
19	673000300073	Lower sprayer axes	1
20	673001300100	lower sprayer seat	1
21	673001500045	O Ring 18×1.8	3
22	672000900003	Screw M4×10	1
23	672000200057	Washing motor support	1
24	673001500047	Washing motor cushion	1
25	674005600070	Washing motor	1
26	672000700007	OTK 396	4
27	673000900173	main pump inlet pipe	1
28	672000700001	OTK 310	2
29	673000900174	main pump outlet pipe	1
30	674000200020	Water division valve	1
31	674001010017	Turbidity sensor	1
	673001500046	O Ring 21×3	1
32	672005400008	OTK 301	2
33	673000900189	water level switch connect pipe	1
34	672000900076	Screw ST4×15.5	2
35	674000600070	Drain pump	1
		Drain pump gasket	
36	672000700003	OTK 286	3
37	672000900096	Screw ST2.9×6.5	2

38	674000900038	NTC	1
39	673000700032	Water well	1
	673001400105	Drain pump Slice	1
40	673001600042	sump water flow guider	1
41	673001500044	Well gasket	1
42	673001600041	Well nut	1
43	673000900176	Heating element connect pipe	1
44	674001100041	Heating element	1
45	673000900175	Connect hose of external pipe	1
46	672000700004	OTK 175	4
47	674000300093	pressure switch	1
48	673001600025	Air breather nut	1
49	673001500005	O Ring I	1
50	673002600001	Air inlet	1
51	672000700026	OTK 192	1
52	673000900311	Flowmeter outlet hose	1
53	674006000003	Flowmeter	1
54	672000201001	Flowmeter bracket	1
55	673000900310	Flowmeter Inlet hose	1
56	674000200001	Inlet valve	1
57	673000700048	protect cover	1
58	673002600036	water level over height protection device	1
59	672005400013	OTK 119	1
60	673005400005	Connect hose	1
61	673000900093	Inlet hose	1
62	674000000242	Power wire	1
63	673001400083	wire holder	1
64	673000900177	Drain hose	1
65	673001500002	Drain hose holder	1
66	673006200027	Drain hose hook	1
67	673001600024	Water inlet nut	2
68	673001500019	Water inlet gasket	2
69	673006500007	Water inlet block	2
70	673002600035	Water inlet	1
71	673002400132	Indicate PCB Box	1
72	672000900027	Screw ST3.5×9	29
73.1	674001000897	PCB	1
73.2			
74	673000404716	Control panel	1
75	672000301132	Control panel crust	1
76	672000900203	Screw ST3.5×12	2

77	673002901142	Control panel paste	1
78	672001804027	Out door	1
79	672006500007	Whirlpool brand	1
80	672000900071	Screw M5×6	5
81	672001100001	Door spring bolt	2
82	672000100000	Door spring	2
83	672001300024	Door hinge assembly	1
84	672000500006	Φ6 clamp	4
85	672001300030	Right hinge assembly	1
86	672001200012	Connecting pin	4
87	672001300030	Left hinge assembly	1
88	670400041002	Turbo assembly	1
89	674002000059	Wiring harness	1
90	674000800047	Dispenser	1
91	672001700002	Dispenser bracket	2
92	672000900013	Screw ST4×12	7
93	672000900016	Screw ST3.5×13	6
94	672002200182	Inner door assembly	1
95	672000900015	Screw ST3.5×16	6
96	673001800094	Handle assembly	1
97	672000900026	Screw ST4.2×16	1
98	674000300040	Micro switch	1
99	673001700026	Door edge safeguard	1
100	673003100008	Upper back crosspiece	1
101	673000200446	Ceiling board	1
102	672000900036	Screw ST3.5×16	2
103	672001500290	Upper front crosspiece	1
104	673001300010	Top clamp block	2
105	672000900007	Screw M4×18	1
106	673001300054	Door lock	1
107		clamp block	1
108	672000900090	Locknut M4	1
109	672000900080	Screw ST3.5×9	6
110	672001600396	Right side panel	1
111	670400055010	Cutlery basket	1
112	670400040052	Upper basket	1
113	673001300102	Cup rack	4
114	672000801047	Lower basket	1
115	673002200091	All-in-1 tablet container	1
116	672000900117	Screw ST3.5×12	4
117	673002400097	PCB Box	1

118	673002400098	PCB Box cover	1
119	672002100057	Right frame	1
120	673001100235	Baseboard	1
121	673001100156	Adjustable foot	2
122	672000200058	Foot support	2
123	673001100151	Adjustable foot	2
124	672001500317	Lower front crosspiece	1
125	672002000042	Base tray	1
126	672001500207	Lower back crosspiece	1
127	672001500166	Central back crosspiece	1
128	672001901536	Tub assembly	1
129	672002100058	Left frame	1
130	672001400007	rubber underlay	2
131	673001400056	basket guider device	4
132	672001700004	Basket guide	2
133	673001700074	Guide end	4
134	672000900085	Screw ST5X20	8
135	672001600396	Left side panel	1

Exploded View

2/3
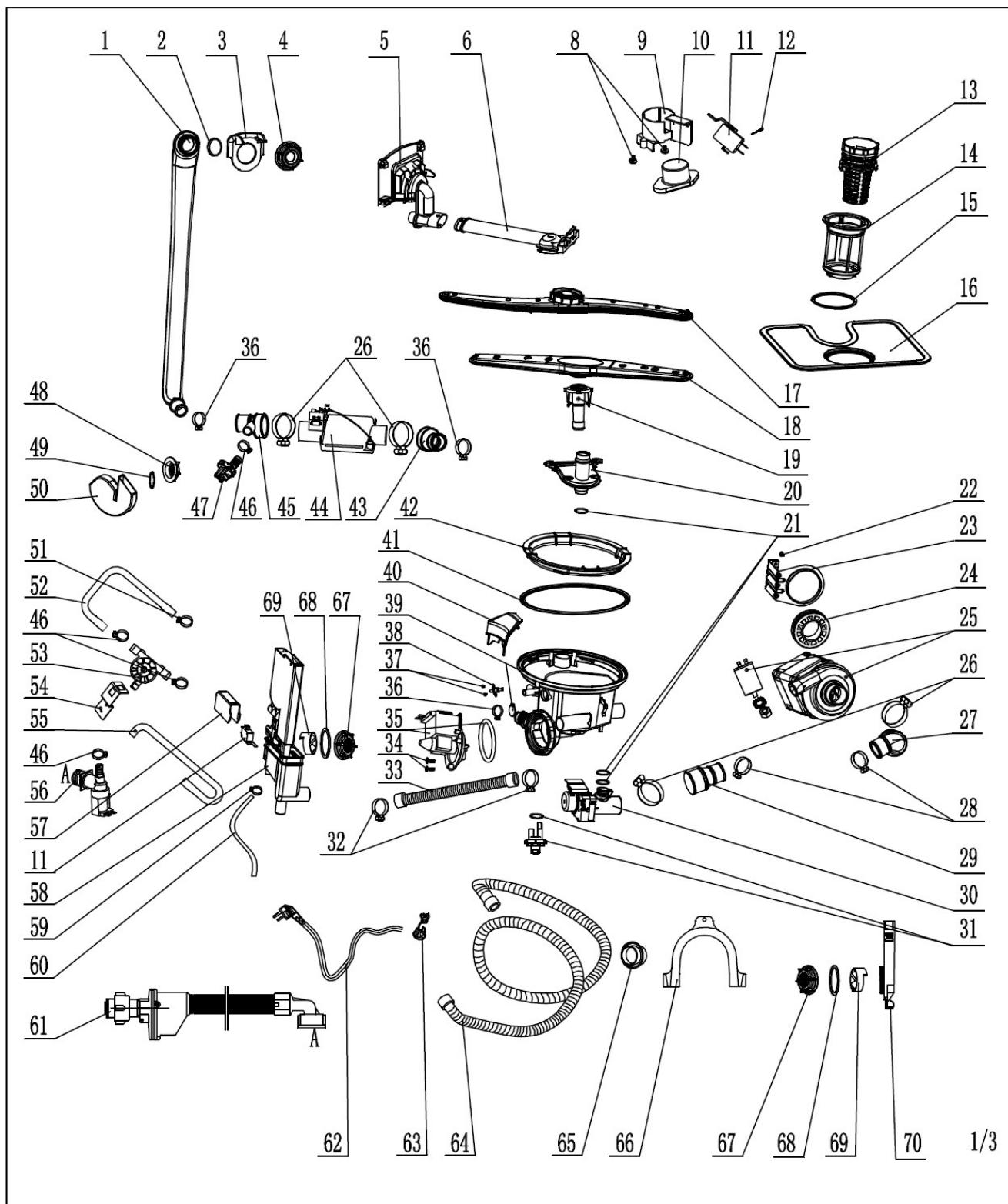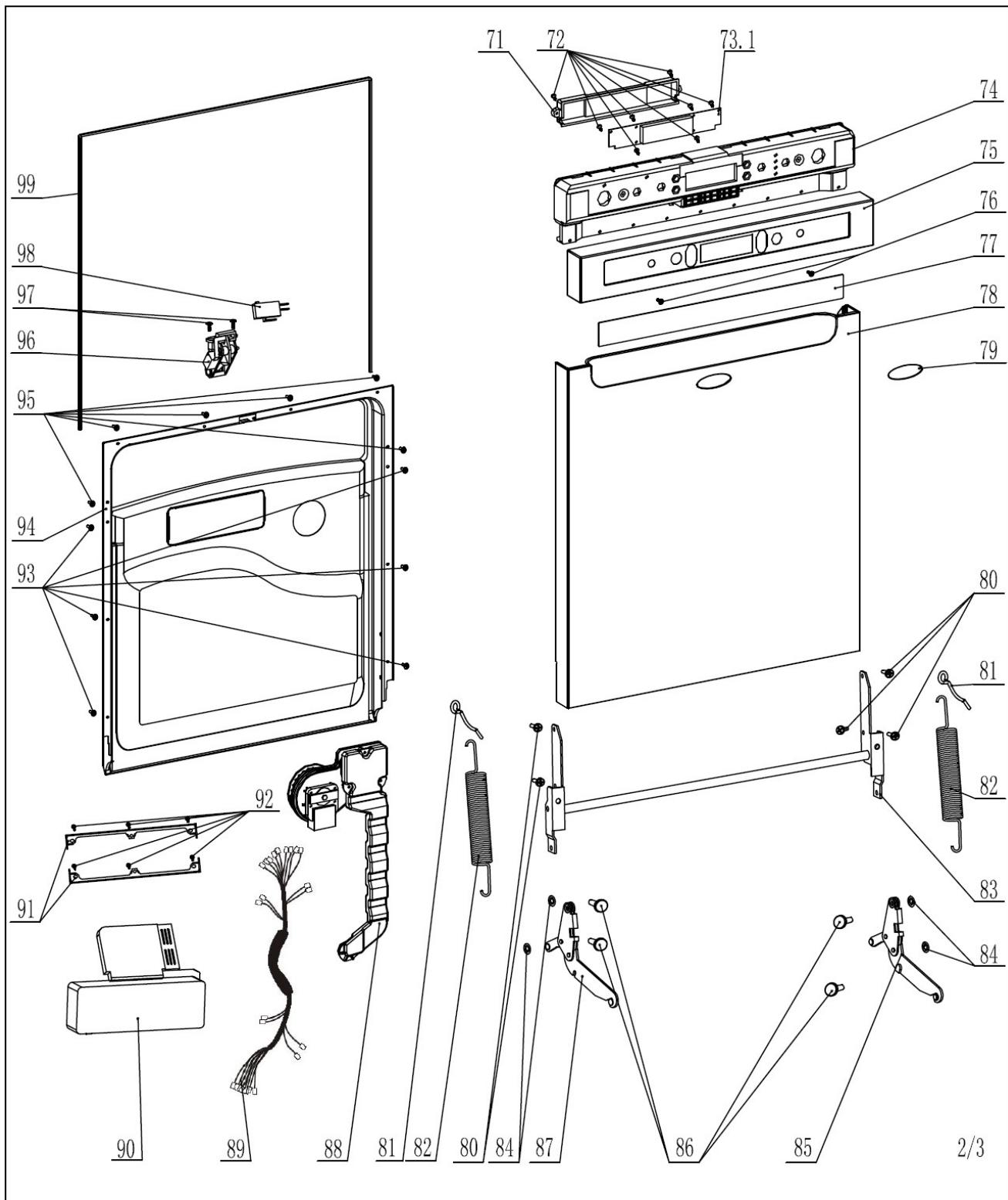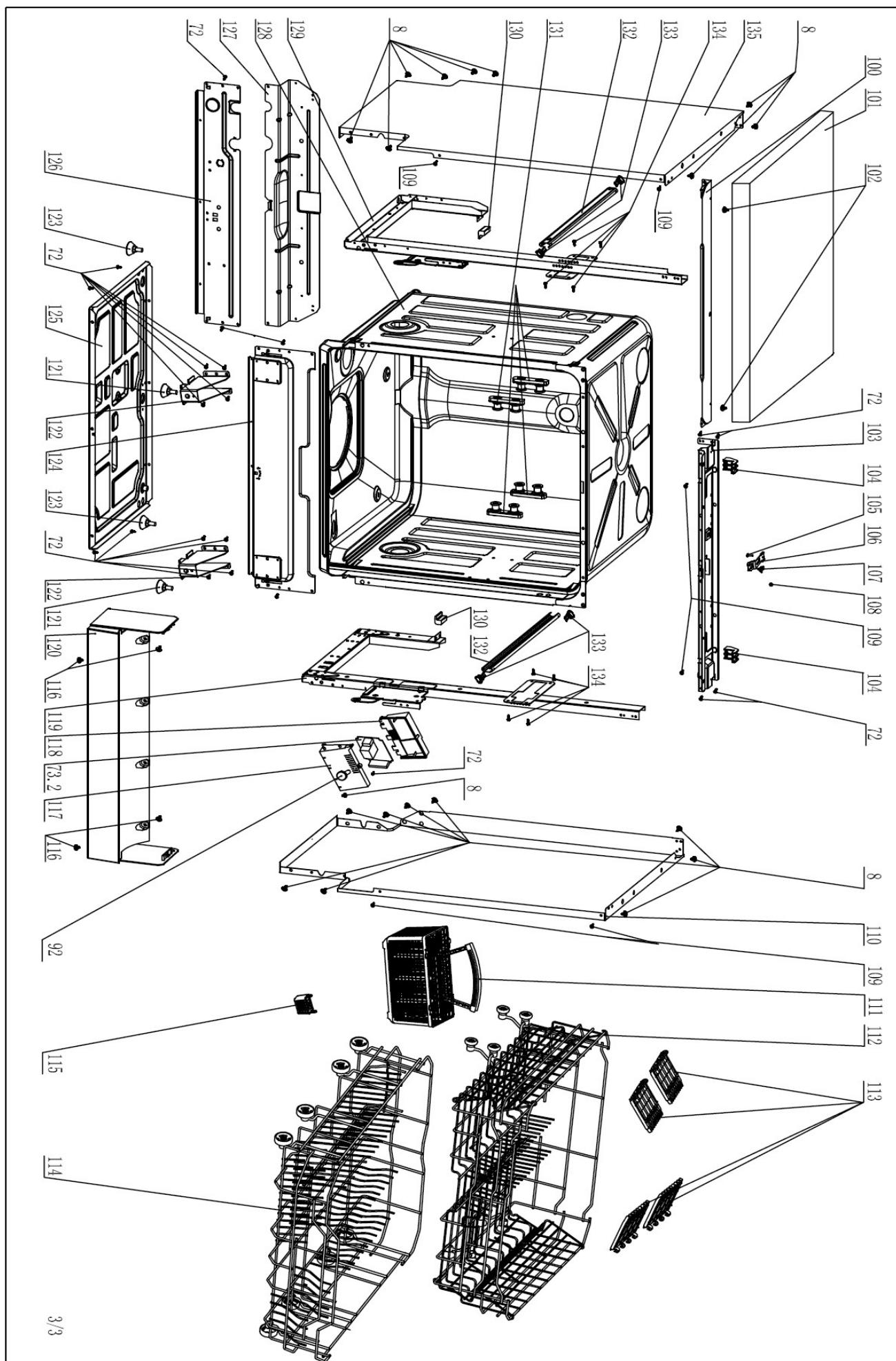
Technical Data

Dimensions & Weight

Height ……………850 mm

Width……………600 mm

Depth……………610mm

Weight……………50 kg

Spray arms Rotations

Spray arm lower……………30-60rpm

Spray arm upper……………25-60rpm

Electrical base data

Voltage……………………220-240V/50Hz

Total power…………………1.76-2.1kW

Drain pump motor

Voltage……………………220-240V/50Hz

Power Consumption…………10-30W

Resistance…………………$202\pm12\Omega$

Heating

Voltage……………………230V/50Hz

Power Consumption…………1800W(+5%~ -10%)

Heating resistances……(T=20℃)…$30\pm3\Omega$

Heating Speed………~2.0℃/min

Temperature on surface………<145℃

Safety intermostat self set (Temperature of water) ………98±5℃

Safety intermostat self reset (Temperature of water) ………80±8℃

Fuse………229±10℃

Single electric water inlet valve

Voltage………220-240V

Frequency………50/60Hz

Resistance………3.75±0.38kΩ

Inlet pressure………0.4~10bar

Coil of dispenser

Voltage………220-240V

Frequency………50/60Hz

Resistance………1.3±0.15kΩ

Fan motor

Voltage………220-230V

Frequency………50Hz

Resistance………0.67±0.1kΩ

Water division motor

Voltage………220-240V

Frequency………50Hz

Resistance………6.52±0.65kΩ

Washing Motor

Voltage…………………………220-240V/50Hz

Power Consumption……………35-120W

Main coil resistance ···········85.5-104.5 Ω

Sub coil resistance ··········87.93-107.4 Ω

Capacitance of motor

Voltage………450VAC

Frequency………50/60Hz

Capacitance………3μF±5%

NTC

20℃	12.11 kΩ
25℃	10.00 kΩ
30℃	8.30 kΩ
35℃	6.93 kΩ
40℃	5.81 kΩ
50℃	4.15 kΩ
60℃	3.01 kΩ
70℃	2.22 kΩ
80℃	1.67 kΩ
85℃	1.45 kΩ

Circuit Diagram

220~240V/50Hz

N   L

blue   brown

white   gray   black   blue   blue

bright sensor   leakage switch   flowmeter   sensor of diverter valve   thermistor

white   gray   black   blue   blue

FM   DVI   t

ACL   ISB   IAQS   **Main PBA**   CON4   RE

FM

Fuse

ACN   IS   HEAT   ML   PS   EV4 EV1_L   EV1   FAN   D/Ed

blue   white   pink   ITR2   white   red   brown   yellow   blue   black   gray

door switch   blue heater   wash pump   drain pump   diverter valve   water valve   fan motor   dispenser

ITR1   WP   DP   FAN   gray

P2

pink   white   red   yellow   blue   black

red

yellow

P1

brown
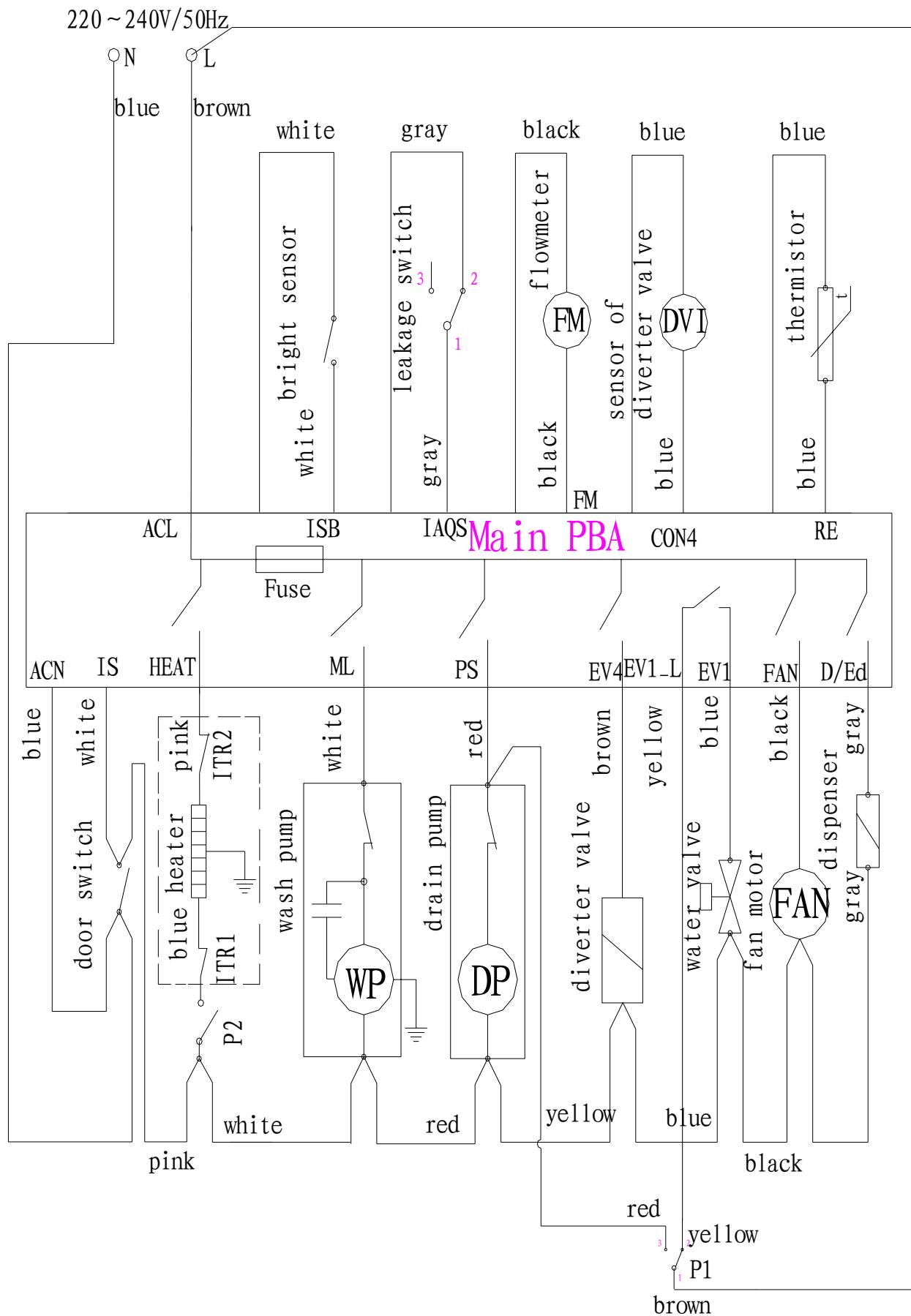
Legend

Code	Designation
ACL	Live(alternating current)
ACN	Neutral(alternating current)
E	earth
D/Ed	Dispenser
EV1	Inlet valve
IAQS	Leakage switch
CB	Control board
FM	Flow meter
P1	Pressure switch for overflow protective (140mm/120mm)
ISB	Rinse aid detector
EV3	Diverter valve
Fuse	Fuse(3.15A)
PS	Drain pump
Ml	Wash pump
ITR1	Safety thermostat
ITR2	Temperature fuse
R	Heater
IS	Door switch
RE	Thermostat (NTC)
P2	Dry heating protect switch
FAN	Fan motor
C	Capacitor
DVI	Sensor of diverter valve
EV1-L	In series with EV1

Wash Cycle Table

Program	Cycle Selection Information	Description of Cycle	Detergent pre-wash/main-wash	Rinse Aid	Running time(min)	Energy (kWh)	Water (L)
AUTO / Auto	For all soiled loads, such as pots, pans, casserole dishes and dishes that have baked on food.	Pre-wash(40℃) Autowash(50-60℃) Rinse Rinse (70℃) Drying.	5/27.5g	Required	120~170	1.1~1.4	10~13.5
Intensive	For the heaviest soiled loads, such as pots, pans, casserole dishes and dishes that have baked on food.	Pre-wash(60℃) Wash (70℃) Rinse Rinse Rinse (55℃) Drying	5/27.5g	Required	135	1.4	15.5
Heavy	For heavily soiled loads, such as pots, plates, glasses and heavily soiled pans.	Pre-wash(45℃) Wash(55℃) Rinse Rinse Rinse (65℃) Drying	5/27.5g	Required	160	1.3	14
Normal (AS/NZS 2007.1)	For normally soiled loads, such as plates, glasses, bowls and normally soiled pans.	Pre-wash Wash (50℃) Rinse Rinse (50℃) Drying	5/27.5g	Required	155	0.75	13.9
Glass	For lightly soiled loads, such as glasses, crystal and fine china.	Pre-wash Wash (45℃) Rinse Rinse (60℃) Drying	0/20 g	Required	80	0.75	12
60' Express	A shorter wash for lightly soiled loads.	Wash (65℃) Rinse Rinse (50℃) Drying	0/20g	Required	60	0.7	11.5
30' Express	A shorter wash for lightly soiled loads that do not need drying.	Wash (40℃) Wash Rinse (45℃)	0/20 g	Required	30	0.55	12.5
Soak	To rinse dishes that you plan to wash later on the same day.	Pre-wash	/	Not Required	8	0.01	4

Online Test Program

1. Test program:

NO.	Process	LCD Display	Status
00	Initialization	8：88	Power on, standby.
01	Water inlet Valve	0A	Turn on the water inlet valve, flow meter should control the water fills in 3.6L.
02	Washing pump and Dispenser	09	Turn on the washing pump and dispenser; make them to work for 60s.
03	Heating element and washing pump	08/ the temperature of water	Turn on the washing pump and heating element, when the water temperature reach 60℃, it will stop, then press Program button to go to next step.
04	Draining pump	07	Turn on the draining pump for 60s.
05	Pause	06	Pause for 15s.
06	Water inlet valve and Turbo motor	The value of Turbidity sensor	Turn on the water inlet valve and Turbo motor, and control the water fills in 3.2L.
07	Washing pump and Water division valve	04	Washing for 3min and controlled the Water division valve position of up .
08	Washing pump and Water division valve	03	Washing for 3 min and controlled the Water division valve position of down .
09	Washing pump and Water division valve	02	Washing for 3 min and check the Water division valve position
10	Draining pump and regeneration valve	01	Turn on the draining pump and regeneration valve, draining for 60s.
11	Finished the test	F0	It will stop after a buzz ring, it can keep standby after electrify again.

2. Technical requirements:

1). Start method: Close the door ,keep pressing the Program button, and turn on thePower button during   the Power Plug has be plugged into appropriate outlet   in 60s, the machine will enter the test program. At this moment, every controlled LED will light and blink with the frequency of 1Hz. Press the start/pause button, the machine will display its model code"A 01", and after 2s the machine will start operation.

 2). During the test program, the machine can skip to the next step by pressing the Program button, except the water inlet step.

 3). During the test program, press the start/pause button or open the door, the machine will stop, all the program LEDs keep bright. Press the start/pause button again or close the door, the machine will continue the procedure automatically, except when the machine stopped after finishing the step 03: heating up the water to 60℃, Press the Program button to next step.

 4). During the test program, all the error alarms must valid, such as water inlet、heating、overflow、sensing device open or short circuit, etc.

 5). The machine displays its program edition F*(*=0，1，2 ……) after finishing the test program.

 6) Step 06: Water inlet valve and Turbo motor , the value of Turbidity sensor will display 0 to 99 during filling water. The value will be 0 to 5 is OK .

Error Codes

1. Error Codes

LCD Display (Error Code)	Error Type	Error Description
E1	Water inlet failure	Water have not reach the enactment level, after filling for 4min.
E3	Heating failure	The temperature can not reach the enactment value, after heating 60min.
E4	Overflow failure	Overflow switch keeps opening or closing for more than 2s at any time.
E6	NTC open circuit failure	NTC open circuit during test.
E7	NTC short circuit failure	NTC short circuit during test.
E 8	Water division valve failure	Water division valve can not controlle the circumvolve position
E9	The Key of Operation failure	The Key can not operate as normal.

2. Failure solutions:

1). Once any alarm occur, the machine will enter solving failure process: the buzzer rings for 30s with the frequency of 1Hz. before it's power on again, the machine will carry out the following step as a circulation. Turn off every load-part except the drain pump, drain water until flow meter stop for 120s, then the draining pump will turn off; after that, it will keep inspecting flow meter, if the flow meter works again, the machine will keep draining as above.

2). During the washing cycle, if the machine inspected water filling abnormity more than 2L (it not during the water inlet period), then it will enter the water solving inlet failure process. The water inside will be cleared after each water inlet step.

3). The above failure, like heating failure、NTC open or short circuit failure will only alarm during on-line test. During the heating washing process, if the NTC OK, that is it have not reach the enactment temperature after heating for 25min, the machine will go to the next step; if the NTC open or short circuit, that is it have not reach the enactment temperature after heating for 10min, the machine will go to the next step.

4). Overflow alarm has the most priority protection level. When other failure protection occurred, the machine can still deal with the overflow failure, however, when overflow failure protection happens, the other failure protections will stop. If overflow happens during washing, the washing pump will keep working for 2min, if open the door at this moment, the washing pump will turn off.

5). During draining in solving failure process, if open the door, the draining timer will pause.